



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/584,955	06/02/2000	Stephen Francis Bush	RD-26,450/USA	5231

7590 08/10/2005
GENERAL ELECTRIC COMPANY (PCPI)
C/O FLETCHER YODER
PO BOX 692289
HOUSTON, TX 77269-2289

EXAMINER

WONG, BLANCHE

ART UNIT	PAPER NUMBER
----------	--------------

2667

DATE MAILED: 08/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/584,955

Applicant(s)

BUSH, STEPHEN FRANCIS

Examiner

Blanche Wong

Art Unit

2667

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 January 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-18 and 21 is/are rejected.
7) ☒ Claim(s) 19 and 20 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 25 June 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to because labeling for 420 in Fig. 3 is misspelled. Examiner suggests replacing – Thrash – with “Trash”.

Claim Objections

2. Claims 13, 14 and 21 are objected to because of the following informalities:
Examiner suggests the same wording and abbreviation for all independent, system and related method, claims in order to provide consistency and clarity.

With regard to cl. 13, ln. 7, Examiner suggests inserting “(OSI)” after – open system interconnection – as it appears in amended cl. 1.

With regard to cl. 14, ln. 3, and cl. 21, ln. 5, Examiner suggest inserting “open system interconnection” before – OSI – as it appears in amended cl. 1.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. **Claim 14** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With regard to cl. 14, ln. 6-7, it is unclear whether it is the object or the protocol that is "comprising executable code".

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. **Claims 1-18,21** are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Mitchell (U.S. Pat No. 6,529,706).

With regard to cl. 1, Mitchell discloses a communication network (aircraft satellite communications system, Fig. 2 and 3), comprising:

a plurality of nodes including at least one earth station 280,284;230 (back-channel and ground stations; network operations center NOC); and

at least one spacecraft 250 (aircraft), wherein said spacecraft comprises an active node 270,271,250 (aircraft network server in aircraft) of said network and wherein the active node is dynamically reconfigurable (dynamic allocation, col. 6, ln. 8; a core set of programming is typically delivered to the aircraft regardless if requested or not by a client computer, col. 6, ln. 11-13; some webpages are replaced automatically, col. 6, ln. 16) to support open system interconnection (OSI) modeled communication (Programming and web browsers are applications. Applications are L7 and Internet application uses TCP/IP of L2 and L3 of OSI.).

With regard to cl. 2-5 and 15-18, it is inherent that there are the 7 layers of OSI.

With regard to cl. 6, Mitchell further discloses said active node 270,271,250 (aircraft network server in aircraft) comprises a node operating system (nodeOS) (it is inherent that there is an operating system within the aircraft network server) and at least one execution environment (EE) (it is inherent that programs and applications are executed by the operating system).

With regard to cl. 7, Mitchell further discloses terrestrial data link (ground station 284 connected to PSTN 290, col. 7, ln. 36-37).

With regard to cl. 8, Mitchell further discloses a PSTN 290 (col. 7, ln. 36-37).

With regard to cl. 9, Mitchell further discloses a wireless data link (communication via radio 281 is inherently wireless; client computer 272 communicates with aircraft network server 271 wirelessly 275; microwave link, col. 7, ln. 65).

With regard to cl. 10, Mitchell further discloses earth station 230 (NOC) is configured to transmit (NOC sends the Internet service and other data services to a satellite, col. 5, ln. 57-58; the satellite is used with the aircraft, col. 5, ln. 48-49) at least one object to said active node 270,271,250 (aircraft network server in aircraft).

With regard to cl. 11, Mitchell further discloses TCP/IP (Internet uses TCP/IP, col. 3, ln. 61-62).

With regard to cl. 12, Mitchell further discloses ATM (it is inherent that the switching center 293 connects to the Internet 210 via ATM).

With regard to cl. 13, Mitchell discloses a method for dynamically configuring (dynamic allocation, col. 6, ln. 8; a core set of programming is typically delivered to the aircraft regardless if requested or not by a client computer, col. 6, ln. 11-13; some webpages are replaced automatically, col. 6, ln. 16) a spacecraft 250 (aircraft) to function as an active node 270,271 (aircraft network server) of a communications network (aircraft satellite communications system, Fig. 2 and 3), the method comprising:

transmitting an object (push mode - a core set of programming is typically delivered to the aircraft regardless if requested or not by a client computer, col. 6, ln. 11-13) from an earth station to said spacecraft, said object comprising at least one method for configuring said spacecraft to include a node operating system (it is inherent that there is an operating system within the aircraft network server) and at least one execution environment (it is inherent that programs and applications are executed by the operating system) and wherein said spacecraft is dynamically reconfigurable (dynamic allocation, col. 6, ln. 8; a core set of programming is typically delivered to the aircraft regardless if requested or not by a client computer, col. 6, ln. 11-13; some webpages are replaced automatically, col. 6, ln. 16) to support open system interconnection modeled communication (Programming and web browsers are

applications. Applications are L7 and Internet application uses TCP/IP of L2 and L3 of OSI.).

With regard to cl. 14, Mitchell discloses a method for dynamically configuring (dynamic allocation, col. 6, ln. 8; a core set of programming is typically delivered to the aircraft regardless if requested or not by a client computer, col. 6, ln. 11-13; some webpages are replaced automatically, col. 6, ln. 16) spacecraft node 270,271,240 (aircraft network server and satellite) a satellite (270,271,250,240 = aircraft network server in aircraft and satellite together)(satellite is 1. a celestial body that orbits a planet or 2. an object launched to orbit Earth or another celestial body, American Heritage Dictionary, 4th Ed.) to communicate over a network (aircraft satellite communications system, Fig. 2 and 3) comprising at least one earth station 280,284,230 (back-channel and ground stations; network operations center NOC) and at least one satellite 240 (the satellite part of the satellite system 270,271,250,240 = aircraft network server in aircraft and satellite together) in accordance with an OSI reference model (7 layers of the OSI model is being used by the aircraft network server 271), the method comprising:

transmitting (NOC sends the Internet service and other data services to a satellite, col. 5, ln. 57-58; the satellite is used with the aircraft, col. 5, ln. 48-49) an object from an earth station to a satellite 270,271,250,240 (aircraft network server in aircraft and satellite together), said object comprising data (webpage content; URL request instructs the data content aggregator 220, col. 5, ln. 43-44) conforming to at least one protocol (TCP/IP; URL request, col. 5, ln. 43) and comprising executable code

(webpages are retrieved from the URL requests) for implementing said protocol at said satellite;

receiving (it is inherent that when NOC sends the Internet service and other data services to a satellite, the satellite receive them) said object at said satellite 270,271,250,240 (aircraft network server in aircraft and satellite together)(specifically the satellite);

extracting at least said executable code (programming, col. 6, ln. 11) from said object at said satellite 270,271,250,240 (aircraft network server in aircraft and satellite together)(specifically the aircraft network server in aircraft);

temporarily storing (it is inherent in in updating and replacing automatically, col. 6, ln. 15-16, that there is temporary storage or buffering) at least said executable code in memory at said satellite;

dynamically reconfiguring (a core set of programming is typically delivered to the aircraft regardless if requested or not by a client computer, col. 6, ln. 11-13) the satellite 270,271,250,240 (aircraft network server in aircraft and satellite together)(specifically the aircraft network server in aircraft) to support the OSI reference model (Programming and web browsers are applications. Applications are L7 and Internet application uses TCP/IP of L2 and L3 of OSI.); and

executing said code for implementing at least one layer (Programming and web browsers are applications. Applications are L7 and Internet application uses TCP/IP of L2 and L3 of OSI.) of the OSI reference model.

With regard to cl. 21, Mitchell discloses a communication network (aircraft satellite communications system, Fig. 2 and 3) comprising:

at least one dynamically reconfigurable (dynamic allocation, col. 6, ln. 8; a core set of programming is typically delivered to the aircraft regardless if requested or not by a client computer, col. 6, ln. 11-13; some webpages are replaced automatically, col. 6, ln. 16) spacecraft node 270,271,250,240 (aircraft network server in aircraft and satellite together) and at least one earth station node 280,284,230 (back-channel and ground stations; network operations center NOC) wherein said earth station node (NOC) is configured to transmit (NOC sends the Internet service and other data services to a satellite, col. 5, ln. 57-58; the satellite is used with the aircraft, col. 5, ln. 48-49) to said spacecraft node 240 (specifically satellite) and wherein the spacecraft node 270,271,250 (specifically aircraft network server in aircraft) is configurable to support an OSI reference model (Programming and web browsers are applications. Applications are L7 and Internet application uses TCP/IP of L2 and L3 of OSI.); and

at least one object comprising data (webpage content; URL request instructs the data content aggregator 220, col. 5, ln. 43-44) and a protocol (TCP/IP; URL request, col. 5, ln. 43) associated with said data, said protocol including information defining at least one node 272 (client computer on the aircraft) of said network to which said data is to be forwarded (URL request) from said spacecraft node 270,271,250 (specifically aircraft network server in aircraft).

Allowable Subject Matter

7. Claims 19 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Blanche Wong whose telephone number is 571-272-3177. The examiner can normally be reached on Monday through Friday, 830am to 530pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi H. Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BW

BW

August 4, 2005


CHI PHAM
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER
8/8/05